

REMARKS

Reconsideration of this application as amended is respectfully requested. New method claims 43-45 have been added. Therefore, claims 1-15 and 17-45 are presented for the Examiner's consideration in view of the following remarks.

Reexamination and reconsideration of the above-identified application, pursuant to and consistent with 37 C.F.R. § 1.112, and in light of the remarks that follow, are respectfully requested. Because the present claims are believed to be in condition for allowance, good cause exists for the entry of this amendment in accordance with 37 C.F.R. § 1.116.

Claims 1-15 and 17-42 have been rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,067,005 to DeVolpi ("DeVolpi").

With respect to independent claims 1, 18 and 19, these claims require a "level segmenting unit for segmenting an output level of the analog signal" and an "analog-to-digital (A/D) converting unit for converting the segmented output level of the analog signal into a digital signal having a plurality of bits."

Similarly, independent claims 31 and 37 call for an "output unit for segmenting an output level of the analog signal and for converting the segmented output level of the analog signal into a digital signal having a plurality of bits."

New independent claims 43 and 44 call for a method of generating a signal representative of a pressure applied to a control apparatus, including the steps of "segmenting the output level of the analog signal into analog output levels"; and "assigning preset digital signals corresponding to each of the analog output levels."

Applicants respectfully submit that, contrary to the Examiner's position, *DeVolpi* does not disclose these claim elements but merely discloses possible use of unspecified A/D circuitry, which does not meet all of the express claim limitations of the present claims. *DeVolpi* states that there may be translation for the analog signal output from the detecting device by "analog to digital or RC timing circuitry into speed and direction vectors." (See, e.g., col. 3, lines 14-22.) *DeVolpi*, however, does not disclose a level segmenting unit or an output unit (or a step) for segmenting the output level of the analog signal.

With the presently claimed invention, as disclosed in the example given in the present application at pages 12-13, discrete analog signals are generated (such as L1, L2, L3, ... L8) by dividing or segmenting the output level of the analog signal into levels. Once the segmentation step is completed, the A/D converter (or A/D conversion step) as claimed, then converts or assigns each particular analog segment to a corresponding digital signal.

The Examiner contends that "an analog-to-digital converter is a level segmenting unit for segmenting the output level of the analog signal." But this is incorrect because simply providing an A/D converter for converting an analog signal into a digital signal does not mean that there will be a preliminary segmentation operation of the analog signal, as called for in the present claims. Thus, in accordance with the present claims, the A/D converter (or assigning step) converts or assigns the segmented output levels of the analog signal into predetermined digital signals.

The Examiner appears to reason that an A/D is (or is inherently) a "level segmenting unit" by noting that "analog input forms a continuous curve; output from the analog-to-digital converter is in the form of a series of discrete steps

or segments." However, the output of an A/D converter is a digital signal representing sample values or steps of the input analog signal; it does not provide a level segmenting unit for segmenting an output level of the analog signal. In other words, there is no step of segmenting the output level of the analog signal into analog output levels, and therefore there is no subsequent assigning of preset digital signals corresponding to each of the analog output levels.

The Examiner has taken the position that an A/D converter is, or is inherently, a "level segmenting unit for segmenting an output level of the analog signal". Applicants respectfully disagree. As the Examiner has not provided a reference in support of this conclusion, Applicants respectfully request that he provide one in this context. If the Examiner's conclusion is based on facts within his personal knowledge, Applicants respectfully request that he provide data as specifically as possible and support the conclusion by facts by way of an affidavit clearly setting forth these facts so that the affidavit may be subject to contradiction. M.P.E.P. § 2144.03.

Moreover, it is required that the Examiner provide a rational or evidence tending to show inherency. See M.P.E.P. § 2112. As this section notes, the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. "To establish inherency, the extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not

sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted) (The claims were drawn to a disposable diaper having three fastening elements. The reference disclosed two fastening elements that could perform the same function as the three fastening elements in the claims. The court construed the claims to require three separate elements and held that the reference did not disclose a separate third fastening element, either expressly or inherently.).

Here, the fact that "A/D circuitry" is disclosed does not make it inherent that there is also necessarily disclosed a "level segmenting unit for segmenting an output level of the analog signal", an "output unit for segmenting an output level of the analog signal ..." or the step of "segmenting the output level of the analog signal into analog output levels".

As noted above, Applicants have added new method claims 43-45, which include steps that are not believed to be anticipated by *DeVolpi* since *DeVolpi* fails to disclose the steps of (1) segmenting the output level of the analog signal into analog output levels; and (2) assigning preset digital signals corresponding to each of the analog output levels. *DeVolpi* merely provides that there may be translation for the analog signal output from the detecting device by an "analog to digital or RC timing circuitry into speed and direction vectors." (See col. 3, lines 14-22.) Thus, there is no disclosure, expressly or inherently, of the steps of segmenting the output level of the generated analog signal into analog output levels and then assigning preset digital signals corresponding to each of the analog output levels.

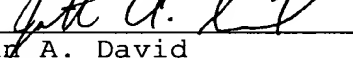
It is therefore respectfully submitted that all of the pending claims are patentable over the cited prior art and warrant immediate allowance.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections that the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: April 30, 2003

Respectfully submitted,

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